

ABSTRACT OF THE DISCLOSURE

In a magnetic resonance device a basic field magnet generates a basic magnetic field that exhibits, within an imaging volume of the magnetic resonance device, a main component oriented in a predeterminable direction. At least one gradient coil is arranged in a region of the gradient magnetic field in which the basic magnetic field exhibits at least one secondary component perpendicular to the main component. Conductors of the gradient coil are arranged such that, given flow of an electrical current in the conductors, a turning moment operating via the main component and affecting a part of the gradient coil is at least partially compensated by a turning moment acting via the secondary component.